

EPA Official Record

Notes ID: 7D87FDBFE19AE1B3D3693759B1098DB4

From: "Dave Dilks" <ddilks@limno.com>

To: Brian Nickel/R10/USEPA/US@EPA

Copy To: Ben Cope/R10/USEPA/US@EPA; "Clark, Dave" <Dave.Clark@hdrinc.com>; <sidf@cdaid.org>

Delivered Date: 06/15/2010 09:10 AM PDT

Subject: RE: Question about June 10th memo

Brian:

We are replacing the old filtering method (which could slightly shift the affected segments in response to replication issues) with the attached one

that "hard wires" the relevant segments to always match the table in the final TMDL. Special DO output from the model gets pasted into the first worksheet, and it automatically generates both the arithmetic and volume-weighted averages. The following worksheets do the averaging, and indicate which segments are used and how the volume weighting is conducted.

Let me know if you have any questions on the spreadsheet. If we are all comfortable with its calculations, we will use it to generate any official

average concentrations. Thanks.

Dave

-----Original Message-----

From: Nickel.Brian@epamail.epa.gov [mailto:Nickel.Brian@epamail.epa.gov]

Sent: Monday, June 14, 2010 6:29 PM

To: Dave Dilks

Cc: Cope.Ben@epamail.epa.gov; Clark, Dave; sidf@cdaid.org

Subject: RE: Question about June 10th memo

Dave:

I repeated the "straight" (not volume-weighted--because I don't have the volumes) averaging using Table 7 of the final TMDL to identify the relevant

reservoir segments and times (see attached). I agree that this doesn't change the average very much.

However, if there's a reason why you used a different "filter" when deciding

what segments to include in the averaging, I'd like to know about it.

Thanks,

Brian Nickel, E.I.T.

Environmental Engineer

US EPA Region 10 | Office of Water and Watersheds | NPDES Permits Unit

Voice: 206-553-6251 | Toll Free: 800-424-4372 ext. 6251 | Fax:

206-553-0165

Nickel.Brian@epa.gov

<http://epa.gov/r10earth/waterpermits.htm>

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(See attached file: Alternate_Idaho_limits_results_Avista_Resp_only.xls)

From: "Dave Dilks" <ddilks@limno.com>
To: Brian Nickel/R10/USEPA/US@EPA
Cc: Ben Cope/R10/USEPA/US@EPA, "Clark, Dave"
< Dave.Clark@hdrinc.com>,
< sidf@cdaid.org>
Date: 06/12/2010 06:26 AM
Subject: RE: Question about June 10th memo

Brian

I see the shading discrepancies you are referring to. I don't have the full calculation spreadsheet available right now to give you an exact answer but, working with the numbers in the memo, any discrepancy in calculations should be on the order of tens of thousandths of a mg/l. We'll certainly make sure that the exact numbers are in there before anything gets finalized, but the memorandum can reviewed with the expectation that the numbers in there will change very little.

Dave

-----Original Message-----

From: Nickel.Brian@epamail.epa.gov [mailto:Nickel.Brian@epamail.epa.gov]
Sent: Friday, June 11, 2010 6:40 PM
To: Dave Dilks
Cc: Cope.Ben@epamail.epa.gov; Clark, Dave; sidf@cdaid.org
Subject: RE: Question about June 10th memo

Dave:

Thanks for the prompt reply. I have one more question. It appears that the shaded cells in the tables on Pages 4 and 5 (ostensibly those cells that were considered in the averaging) do not match the model segments and times where Avista has a DO responsibility (in other words, where and when the DO sag under the TMDL scenario is at least 0.2 mg/L) according to the final TMDL. For example, for July 1-15, your table has segments 174-188 shaded, whereas, according to the final TMDL, Avista only has a responsibility in segments 176-188, for that two-week period. Could you please explain the discrepancy?

Thanks,

Brian Nickel, E.I.T.

Environmental Engineer

US EPA Region 10 | Office of Water and Watersheds | NPDES Permits Unit

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From: "Dave Dilks" <ddilks@limno.com>

To: Brian Nickel/R10/USEPA/US@EPA

Cc: <sidf@cdaid.org>, Ben Cope/R10/USEPA/US@EPA, "Clark, Dave"

< Dave.Clark@hdrinc.com>

Date: 06/11/2010 02:34 PM

Subject: RE: Question about June 10th memo

Brian:

1. Model inputs were set up consistent with the TMDL.

2. The values in Table 2 are transposed, while the body of the text is correct. Table 2 should read:

-----+-----+-----			
Simulation	Incremental	Incremental	
Impact on	Impact on		
Straight	Volume-Weighted		
Arithmetic	Average (mg/l)		
Average			
(mg/l)			
-----+-----+-----			
Original	0.0016	0.0035	
-----+-----+-----			
Replicatio	-0.0057	-0.0066	
n			
-----+-----+-----			

Let me know if you or Ben have additional questions.

Dave

-----Original Message-----

From: Nickel.Brian@epamail.epa.gov [mailto:Nickel.Brian@epamail.epa.gov]

Sent: Friday, June 11, 2010 5:07 PM

To: Dave Dilks

Cc: sidf@cdaid.org; Cope.Ben@epamail.epa.gov

Subject: Question about June 10th memo

Dave:

I just read your June 10th memo, and I've sent it to Ben Cope (who is out today). We may have more questions once Ben gets back.

Based on my initial read, I have two questions:

1. The memo refers to ammonia and CBOD5 "limits." Were the model inputs set equal to 71% of the "limits," or, equivalently, were the model inputs calculated by dividing the "limits" by 1.4, consistent with to the model runs supporting the TMDL?

2. The paragraph discussing the results (Page 2) says that "the alternative

Idaho discharge scenario was predicted to increase (DO) by 0.0016 to 0.0035 mg/L for the original simulation. The replication showed a

decrease in (DO) of 0.0057 to 0.0066 mg/L." These statements do not match Table 2, which shows that the original simulation showed a DO increase of 0.0016 mg/L using a straight arithmetic average, and a 0.0057 mg/L decrease using a volume-weighted average, and that the replication simulation showed a 0.0035 mg/L increase using a straight arithmetic average, and a decrease of 0.0066 mg/L using a volume-weighted average.

In other words, according to the table, the question of whether the alternative scenario results in an increase or a decrease in DO depends on

how you average the results, whereas the narrative states that this depends

on which simulation you're referring to (the original or the replication).

Could you please clarify the results?

Thanks,

Brian Nickel, E.I.T.

Environmental Engineer

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- Spokane_Averaging_Spreadsheet.xls